Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) An axial-flow fan, comprising:

a main shaft;

a plurality of main fins provided on the outer circumference of the main shaft, the main fins being inclined relative to an axial direction of the main shaft, where a front end in a rotary direction of the main fins is located on an intake side and a rear end in the rotary direction of the main fins is located on an exhaust side when the axial-flow fan transfers air; and

an auxiliary fin provided between mutually adjoining main fins,

wherein the height of the auxiliary fin from the front end to the rear end in the rotary direction of the auxiliary fin along the axial direction of the main shaft is not less than half and not more than four fifths of the height of the main fins from the front end to the rear end of the main fins in the rotary direction along the axial direction of the main shaft, and

wherein, when the main fins are arranged by a pitch W, the front end in the rotary direction of the auxiliary fin is located within $-1/8\times W$ to $+1/8\times W$ along the rotary direction from the front end in the rotary direction of the main fins adjoining in a reverse rotary direction.

2. (Previously Presented) The axial-flow fan according to claim 1, wherein the rear end in the rotary direction of the auxiliary fin is spaced apart from the rear end in the rotary direction of the main fins adjoining in the reverse rotary direction by $1/2\times W$ in the rotary direction.

3. (Previously Presented) The axial-flow fan according to claim 1, wherein, when an attachment angle of the auxiliary fin relative to the main shaft is θ_2 and an attachment angle

of the main fins relative to the main shaft is θ_1, the maximum of θ_2 is represented as $\theta_2 = \theta_1 + 5^\circ$.

4. (Previously Presented) The axial-flow fan according to claim 1,

wherein the cross section of the main fins along the axial direction of the main shaft is one of streamlined and approximately streamlined, and

wherein the cross section of the auxiliary fin is one of similar and approximately similar to the main fins.

5. (Previously Presented) The axial-flow fan according to claim 1, wherein the thickness of the cross section of the auxiliary fin taken along the axial direction of the main shaft is not more than the thickness of the cross section of the main fins taken along the axial direction of the main shaft.

6. (Previously Presented) The axial-flow fan according to claim 1, wherein one of the main fins is arranged to be superposed on the adjoining main fins when being seen from the exhaust side.

7. (Previously Presented) The axial-flow fan according to claim 1, wherein a mirrored surface is formed on a positive pressure side and a negative pressure side of the main fins.

8. (Previously Presented) The axial-flow fan according to claim 1, further comprising:

a motor that drives the main shaft;

a cylindrical frame that accommodates the main shaft, the main fins, the auxiliary fin and the motor, the frame having openings on the intake side and the exhaust side; and

a spoke extending from an edge of the opening on the exhaust side of the frame approximately to a center of the opening to hold the motor,

wherein the spoke works as a guide fin in discharging air transferred by the main fins toward the outside of the frame.

9. (Previously Presented) The axial-flow fan according to claim 8, wherein the spoke is curved in a direction opposite to the rotary direction of the main fins, and has a curved surface adapted to scoop up the air transferred by the main fins.

10. (Previously Presented) The axial-flow fan according to claim 8, wherein the frame is made of one of a metal and a resin having high thermal conductivity.

11. (Previously Presented) The axial-flow fan according to claim 1, further comprising:

a frame that accommodates the main shaft, the main fins, the auxiliary fin and a motor for driving the main shaft, the frame having openings on the intake side and an exhaust side; and

a straightening plate having a tapered configuration of which a diameter of the plate becomes greater toward a direction opposite to a direction for transferring the air.

12. (Previously Presented) The axial-flow fan according to claim 1, further comprising:

a frame that accommodates the main shaft, the main fins, the auxiliary fin and a motor for driving the main shaft, the frame having openings on the intake side and an exhaust side; and

a filter attached on the frame to cover the opening on the intake side.

13. (Previously Presented) The axial-flow fan according to claim 12, wherein the opening of the filter has one of a polygonal and a circular profile, and

wherein the thickness of the filter is not less than 0.1 mm and not more than 5 mm.

14. (Previously Presented) The axial-flow fan according to claim 13, wherein a diameter of the opening of the filter is not less than 0.3 mm and not more than 3 mm, and

wherein an opening ratio of the filter is not less than 70% and not more than 90%.

15. (Previously Presented) The axial-flow fan according to claim 12, wherein a predetermined gap is secured between the filter and the opening of the frame.

16. (Previously Presented) The axial-flow fan according to claim 1, further comprising:

a frame that accommodates the main shaft, the main fins, the auxiliary fin and a motor for driving the main shaft, the frame having openings on the intake side and an exhaust side; and

a cylindrical cover having a louver attached thereto, the cover being provided on the exhaust side of the frame,

wherein the louver includes a plurality of louver components extending from the center of the cover to the periphery thereof, the louver components working as a guide fin in discharging air transferred by the main fins toward the outside of the frame.

17. (Previously Presented) The axial-flow fan according to claim 16, wherein the louver component is inclined in a direction opposite to the inclination of the main fins.

18. (Previously Presented) The axial-flow fan according to claim 1, further comprising:

a frame that accommodates the main shaft, the main fins, the auxiliary fin and a motor for driving the main fins, the frame having openings on the intake side and an exhaust side; and

a cylindrical cover having a louver attached thereinside, the cover being provided on the exhaust side of the frame,

wherein the louver includes a plurality of louver components disposed approximately in parallel, and

wherein the space between the adjoining louver components where light-shielding surfaces of the louver components are approximately orthogonal to the inclination of the main fins is broader than the space between the louver components where the light-shielding surfaces are approximately parallel to the inclination of the main fins.

19. (Previously Presented) The axial-flow fan according to claim 16, wherein a predetermined gap is secured between the louver and the opening of the frame on the exhaust side.

20. (Previously Presented) A projector, comprising:

an optical system including an optical modulator that modulates a light beam irradiated by a light source in accordance with image information to project the light beam in an enlarged manner to form a projection image, and a fan for circulating an air,

wherein the fan is the axial-flow fan according to claim 1.

21. (New) The projector according to claim 20, wherein the rear end in the rotary direction of the auxiliary fin is spaced apart from the rear end in the rotary direction of the main fins adjoining in the reverse rotary direction by $1/2 \times W$ in the rotary direction.

22. (New) The projector according to claim 20, wherein, when an attachment angle of the auxiliary fin relative to the main shaft is θ_2 and an attachment angle of the main fins relative to the main shaft is θ_1, the maximum of θ_2 is represented as $\theta_2 = \theta_1 + 5^\circ$.

23. (New) The projector according to claim 20,

wherein the cross section of the main fins along the axial direction of the main shaft is one of streamlined and approximately streamlined, and

wherein the cross section of the auxiliary fin is one of similar and approximately similar to the main fins.

24. (New) The projector according to claim 20, wherein the thickness of the cross section of the auxiliary fin taken along the axial direction of the main shaft is not more than the thickness of the cross section of the main fins taken along the axial direction of the main shaft.

25. (New) The projector according to claim 20, wherein one of the main fins is arranged to be superposed on the adjoining main fins when being seen from the exhaust side.

26. (New) The projector according to claim 20, wherein a mirrored surface is formed on a positive pressure side and a negative pressure side of the main fins.

27. (New) The projector according to claim 20, further comprising:

a motor that drives the main shaft;

a cylindrical frame that accommodates the main shaft, the main fins, the auxiliary fin and the motor, the frame having openings on the intake side and the exhaust side; and

a spoke extending from an edge of the opening on the exhaust side of the frame approximately to a center of the opening to hold the motor,

wherein the spoke works as a guide fin in discharging air transferred by the main fins toward the outside of the frame.

28. (New) The projector according to claim 27, wherein the spoke is curved in a direction opposite to the rotary direction of the main fins, and has a curved surface adapted to scoop up the air transferred by the main fins.

29. (New) The projector according to claim 27, wherein the frame is made of one of a metal and a resin having high thermal conductivity.

30. (New) The projector according to claim 20, further comprising:

a frame that accommodates the main shaft, the main fins, the auxiliary fin and a motor for driving the main shaft, the frame having openings on the intake side and an exhaust side; and

a straightening plate having a tapered configuration of which a diameter of the plate becomes greater toward a direction opposite to a direction for transferring the air.

31. (New) The projector according to claim 20, further comprising:

a frame that accommodates the main shaft, the main fins, the auxiliary fin and a motor for driving the main shaft, the frame having openings on the intake side and an exhaust side; and

a filter attached on the frame to cover the opening on the intake side.

32. (New) The projector according to claim 31, wherein the opening of the filter has one of a polygonal and a circular profile, and

wherein the thickness of the filter is not less than 0.1 mm and not more than 5 mm.

33. (New) The projector according to claim 32, wherein a diameter of the opening of the filter is not less than 0.3 mm and not more than 3 mm, and

wherein an opening ratio of the filter is not less than 70% and not more than 90%.

34. (New) The projector according to claim 31, wherein a predetermined gap is secured between the filter and the opening of the frame.

35. (New) The projector according to claim 20, further comprising:

a frame that accommodates the main shaft, the main fins, the auxiliary fin and a motor for driving the main shaft, the frame having openings on the intake side and an exhaust side; and

a cylindrical cover having a louver attached thereto, the cover being provided on the exhaust side of the frame,

wherein the louver includes a plurality of louver components extending from the center of the cover to the periphery thereof, the louver components working as a guide fin in discharging air transferred by the main fins toward the outside of the frame.

36. (New) The projector according to claim 35, wherein the louver component is inclined in a direction opposite to the inclination of the main fins.

37. (New) The projector according to claim 20, further comprising:

a frame that accommodates the main shaft, the main fins, the auxiliary fin and a motor for driving the main fins, the frame having openings on the intake side and an exhaust side; and

a cylindrical cover having a louver attached thereinside, the cover being provided on the exhaust side of the frame,

wherein the louver includes a plurality of louver components disposed approximately in parallel, and

wherein the space between the adjoining louver components where light-shielding surfaces of the louver components are approximately orthogonal to the inclination of the main fins is broader than the space between the louver components where the light-shielding surfaces are approximately parallel to the inclination of the main fins.

38. (New) The projector according to claim 35, wherein a predetermined gap is secured between the louver and the opening of the frame on the exhaust side.